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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,210	06/29/2000	Govind Malalur	P108339-09053	8162
32294	7590	06/23/2005	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			NGUYEN, BRIAN D	
14TH FLOOR			ART UNIT	
8000 TOWERS CRESCENT			PAPER NUMBER	
TYSONS CORNER, VA 22182			2661	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,210

Applicant(s)

MALALUR, GOVIND

Examiner

Brian D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-31 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 5-14, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kerstein et al (6,393,548).

Regarding claims 1 and 9, Kerstein discloses a network switch (12), comprising: a plurality of data ports (20) for communicating with a data network; a plurality of statistics counters connected to the data port for monitoring operational parameters associated with the data port, the statistics counter including statistics registers therein; a statistics gathering circuit connected to the statistics counter for reading the statistics registers, and for directly transmitting data from the statistics registers to a remote system memory (34) to thereby reconstruct the statistic registers in at least a portion of the remote system memory; direct memory access

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circuitry, wherein the statistics gathering circuit transmits the data from the statistics registers to the remote system memory via a Direct Memory Access (DMA) operation; and a remote CPU (40) for accessing the portion of the remote system memory to read the reconstructed statistic registers, wherein the remote CPU accesses the remote system memory to read selected ones of the statistic registers (see abstract; figures 1-3; col. 4, lines 19-58; col. 6, lines 6-15 & 57-67; col. 7, line 50-col. 8, line 19; col. 8, lines 33-37; col. 10, lines 1-24).

Regarding claims 5, 6, Kerstein discloses a CPU interface unit for interfacing the network switch to the remote CPU, the CPU interface unit comprising the statistics gathering circuit and the statistics counter therein (see figures 2A & 2B for details of the switch; Specifically, element 74 in figure 2B).

Regarding claims 7-8, Kerstein discloses the switch comprises a communication channel (bus) (see col. 1, lines 26-31).

Regarding claim 10, Kerstein discloses the statistics gathering circuit is configured to transmit the data from the statistics registers to a predetermined section of the remote system memory, the network switch further comprising a CPU interface unit which directs a the remote CPU to identify where the data for the data port is stored in the predetermined section of remote memory (see figure 2B; col. 1, line 56-col. 2, line 4; col. 5, lines 51-63; col. 6, lines 57-67).

Regarding claims 11 and 12, Kerstein discloses a network switch (12), comprising: a data port for communicating with a data network; a statistics counter connected to the data port for monitoring operational parameters associated with the data port, the statistics counter including statistics registers therein, and a statistics gathering circuit connected to the statistics counter for reading the statistics registers, and for directly transmitting data from the statistics registers to a

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remote system memory; and further comprising an active counter register which is configured to selectively enable statistics gathering from selected ones of the statistics registers (see abstract; figures 1-3; col. 4, lines 19-58; col. 6, lines 6-15 & 57-67; col. 7, line 50-col. 8, line 19; col. 8, lines 33-37; col. 10, lines 1-24. Note that the function of the active counter register is just to select the statistics registers for statistics gathering that is performed by Kerstein's buffer manager and/or read buffer).

Regarding claims 13-14, and 17, claims 13-14 and 17 are method claims that have substantially the same limitations as the apparatus claim 1. Therefore, they are subject to the same rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-4 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerstein et al (6,393,548) in view of Alexander et al (5,909,564).

Regarding claims 3-4 and 15-16, Kerstein further discloses periodically update all the per port statistics (see col. 10, lines 1-2), Kerstein does not specifically disclose the use of a timer unit and a timer value indicating a number of system clock cycles which determines the predetermined period. However, it is obvious that a predetermined period is based on a number of clock cycles and a timer is used to measure time. Therefore, it would have been obvious to a

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person of ordinary skill in the art at the time the invention was made to use the timer for measuring time so that the statistics registers can be repeatedly read and transmit to the remote memory in order to prevent overflow in the internal memory.

Allowable Subject Matter

5. Claims 18-31 are allowed.

Response to Arguments

6. Applicant's arguments filed 5/17/05 have been fully considered but they are not persuasive.

The applicant generally argued that there is no teaching or suggestion in Kerstein of a statistics counter that is connected to a data port and although Kerstein discloses the external memory includes a MIB counter region that contains all per port statistics which updated periodically by the switch. However, there is no teaching or suggestion in Kerstein that the MIB counter region is updated by a statistics gathering circuit that is connected to the statistics counter, that reads the statistics registers and that directly transmit data from the statistics registers to the remote system memory as recited in claims 1, 11 and 12. The examiner disagrees because Kerstein clearly teaches the port statistics are stored in statistics counter (on-chip counters) and in external memory 34 (see col. 4, lines 24-32; col. 10, lines 1-6). Specifically, in col. 10, lines 1-6, Kerstein teaches that the port statistics are stored in the statistics counter and the external memory is periodically updated to prevent loss of MIB data (port statistics). In other words, the statistics data are periodically transfer from the statistics counter to the external

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memory to prevent loss of the statistics data. Note that the buffer manager 65 in figure 3 can be considered a statistics gathering circuit because the buffer manager connected to both internal and external memories to control the flow of statistics data from the internal to the external memory. The applicant also argued that there is no teaching of reconstructing the statistics registers in at least a portion of the remote system memory. The examiner disagrees because the overflow areas 110 where the MIB located is just an assigned portion of the external memory (see col. 8, lines 8-19). The applicant also argued that there is no teaching in Kerstein of an active counter register which is configured to selectively enable statistics gathering from selected ones of the statistics register as recited in claims 11 and 12. This argument is not persuasive because the function of selectively enable statistics gathering from selected ones of the statistics registers is part of Kerstein's buffer manager. The applicant also argued that Alexander fails to cure the deficiencies of Kerstein such as the statistics counters. The examiner disagrees because Kerstein does disclose the statistics counters.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

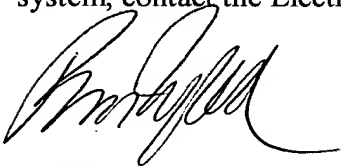
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



6/15/05